

SWACHH BHARAT MISSION (URBAN): NEED VS. PLANNING

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POLICY BRIEF

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LIST OF ABBREVIATIONS

A&OE	<i>Administrative & Office Expenses</i>
AMRUT	<i>Atal Mission for Rejuvenation and Urban Transformation</i>
CB	<i>Capacity Building</i>
CRSP	<i>Central Rural Sanitation Programme</i>
CSMC	<i>Central Sanctioning and Monitoring Committee</i>
CSR	<i>Corporate Social Responsibility</i>
CT	<i>Community Toilet</i>
FSM	<i>Faecal Sludge Management</i>
Gol	<i>Government of India</i>
GP	<i>Gram Panchayat</i>
IEC	<i>Information, Education and Communication</i>
IHHL	<i>Individual Household Latrines</i>
ILCS	<i>Integrated Low Cost Sanitation Scheme</i>
JNNURM	<i>Jawaharlal Nehru National Urban Renewal Mission</i>
NBA	<i>Nirmal Bharat Abhiyan</i>
PPP	<i>Public Private Partnership</i>
PT	<i>Public Toilet</i>
SBM	<i>Swachh Bharat Mission</i>
SBM-G	<i>Swachh Bharat Mission (Gramin)</i>
SBM-U	<i>Swachh Bharat Mission (Urban)</i>
SWM	<i>Solid Waste Management</i>
TSC	<i>Total Sanitation Campaign</i>
UIDSSMT	<i>Urban Infrastructure Scheme for Small and Medium Towns</i>
UIG	<i>Urban Infrastructure and Governance</i>
ULB	<i>Urban Local Body</i>
UT	<i>Union Territory</i>

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ABSTRACT

This paper analyses the effectiveness of the Swachh Bharat Mission (Urban) by analyzing the financial and physical progress of the mission and the manner in which funds have been allocated and sanctioned to different activities in various states. It examines the planned allocation of central funds (i) between the SBM (Urban) and the rural component, SBM (Gramin) (ii) among the various components of SBM-U, i.e., Construction of Individual Household Latrines and Community Toilets (IHHLs and CTs), Solid Waste Management (SWM), Information, Education and Communication (IEC) and Capacity Building (CB) and (iii) across different states and UTs. It finds that the disparity in funding between the SBM-U and SBM-G does not reflect the risk adjusted need of urban areas, given their complexities of urban congestion and poverty that lead to higher health and environmental risk. The allocation of funds between the various components of SBM-U undervalues the need for proper solid waste management, IEC and Capacity Building and appears to ignore their effect on sanitation practices, the importance of building capacity to properly manage waste from the increasing number of toilets constructed and more organized solid waste disposal. Finally, the pattern of the allocation of funds between states does not benefit states that need it the most, in terms of states that have a lower share of in-house toilets, because the funds were allocated on the basis of the share of urban population and statutory towns. The paper concludes with recommendations to rectify some of these shortcomings.

INTRODUCTION

Sanitation has been at the forefront of urban policy in India in recent times. The need to improve sanitation, however, was realised much earlier. Post-independent India was constantly struggling with its image as the symbol of insanitary living conditions. It was not long before the planning commission noted the magnitude of the problem by identifying the blatant disregard for sanitation in the development of towns by local authorities (First Five Year Plan, 1951). But urban policy on basic services in India traditionally linked sanitation with water supply, largely focusing on sewerage services. The Fourth Five Year Plan (1969-74) acknowledged that the “problems of sanitation require to be dealt with on a long term basis”.¹ The Sixth Plan (1980-85) finally recognised that urban development is inescapably connected with the provision of safe water supply and adequate sanitation and stated that the position in regard to urban sewerage and sanitation is even less satisfactory than water supply.

From there on, a number of schemes were launched to improve sanitation in urban areas. The Integrated Low Cost Sanitation Scheme (ILCS) was launched in 1980 to provide financial support for the conversion of dry latrines into twin pit-pour flush latrines and to construct new toilets for the economically weaker households with no toilets (GoI, 2008). The scheme ended in 2014. From 2012 to 2014, Rs 38.92 crore were released under the scheme.² The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in 2005 to improve infrastructure provisions and basic services for the urban poor covering a variety of sectors like roads, water supply, sewerage, drainage, solid waste management and transport (GoI, 2005). Even though the JNNURM didn't solely address sanitation issues, its investments in sanitation over five years were equal to nearly half the investments made in both water and sanitation in the previous 55 years (WSP-TARU, 2008). Under JNNURM³, Rs 51760 crore were allocated for infrastructure projects under Urban Infrastructure and Governance (UIG) and Urban Infrastructure Scheme for Small and Medium Towns (UIDSSMT), out of which Rs 15480 (30%) were allocated to sewerage and solid waste management projects. Whereas Rs 34,471 crore were released for its infrastructure projects, out of which, Rs 8,823 crore (26%) were released for sewerage and solid waste management till 2014.⁴

In rural areas, on the other hand, the Central Rural Sanitation Programme (CRSP) was launched in 1986 to provide subsidies for the construction of sanitary household toilets, sanitary complexes for women along with health education and awareness campaigns. It was a supply driven, highly subsidised and infrastructure oriented programme. As a result of deficiencies and low financial allocations, the CRSP

had very little impact on an enormous problem, which led to the formulation of Total Sanitation Campaign (TSC) in 1999. The TSC was started as a demand driven, community-led programme with major IEC inputs to make sanitation a felt need of the people.⁵ The Total Sanitation Campaign (TSC) was later renamed the Nirmal Bharat Abhiyan (NBA) in 2012. The total allocation under TSC/NBA till 2014-15 was Rs 28,446 crore, out of which Rs 15,598 (55%) crore was spent. But even though these programmes brought the issue of sanitation to the forefront, it remains a complex challenge that continues to plague urban areas. The census of 2011 notes that in 4,041 statutory towns, close to eight million households do not have access to toilets and defecate in the open.

It was to address these sanitation challenges that the Nirmal Bharat Abhiyan⁶ was restructured into the Swachh Bharat Mission (SBM) in 2014 comprising two sub-missions, one aimed at rural areas - SBM-G and another for urban areas henceforth called SBM-U⁷ which this paper focuses on. It highlights a fundamental issue that is essential to the urban future of our growing towns and cities and therefore an understanding of the financial and physical progress of its components, is critical to understanding the future course of any urban policy on sanitation.

The paper is structured as follows. The first section attempts to highlight the disparity in funding between the rural and urban component of SBM and argues that inadequate sanitation in urban areas causes graver environmental and health impacts. The second section looks at the allocation across the components of SBM-U to find that toilet construction remains the highest funded component under the mission, undervaluing the need for proper Solid Waste Management (SWM), Information, Education and Communication (IEC) and Capacity Building (CB) and ignoring their effect on sanitation practices. The final section analyses the allocation across states to find that the allocation and sanction of central funds and the applications projected and approved for Individual Household Latrine (IHHL) construction do not benefit states that need it the most (i.e. states that have a higher share of households without toilets).

DATA

In terms of the methodology, the SBM-U website provides the central share allocated and sanctioned for each component covered under the mission as well as the total number of IHHL approved and constructed, and the status of implementation of SWM in each state. The number of IHHLs projected to be constructed for each state were accessed from the Lok Sabha question no. 1394 for 4th March 2015. The Census of India 2011 provides the list of statutory towns with the number of households without access to toilets and households

defecating in the open, as well as the households connected to sewerage system and septic tanks. The census 2011 data was matched with the SBM-U central share allocated and sanctioned and the IHHL applications projected, approved and constructed.

Consistency and transparency

The SBM-U website has two sources that provide data on the progress of its components. Both sources represent numbers that are inconsistent. The first source⁸ on the SBM-U website notes that 46.3 lakh IHHLs have been constructed as of February, 2018. Whereas the second source⁹ on the website notes that 40.2 lakh IHHLs have been constructed as of May 2018. In both sources, there are discrepancies when the number of IHHLs constructed is compared with the number of IHHLs approved or received for construction. The first source shows that in 7 states namely Andaman and Nicobar Islands, Arunachal Pradesh, Bihar, Meghalaya, Mizoram, Sikkim and Telangana, 3.9 lakh IHHL applications were received for construction but 4.8 lakh have been constructed, therefore representing a discrepancy of 89108 IHHLs. The second source shows that in 8 states namely Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, D&N Haveli, Daman & Diu, Nagaland, Telangana and West Bengal, 6.2 lakh applications have been approved for IHHL construction, whereas 6.5 lakh have been constructed, representing a discrepancy of 33086 IHHL constructed. For the purpose of this paper, the second source was used due to lesser discrepancy. Moreover, the second source provides the number of IHHL applications approved as against the first source that only provides the number of applications received.

Under, the JNNURM, the previous urban development programme, the data was represented in various links on the mission website with state, city and sector wise classifications. But it remained consistent and pertained to the same date. Projects under the JNNURM were approved by the Central Sanctioning and Monitoring Committee (CSMC), the minutes of the meetings of the CSMC along with the project proposals presented in these meetings were uploaded on the website. So the date of approval of the project and the funds sanctioned could be cross checked with these documents. It could be said that since the centre was monitoring the mission effectively, the process of data collection was efficient. Under the SBM-U, the IHHL applications are approved by the Urban Local Bodies (ULB). While this decentralisation is positive, it is not inconsistent with a co-ordinated monitoring and dissemination effort at the central level, which could help improve the consistency of information dissemination.

URBAN VS RURAL ALLOCATION

Swachh Bharat Mission (Urban)

The urban component of the Swachh Bharat Mission was launched in 2014 to eliminate open defecation, eradicate manual scavenging as well as implement modern and scientific SWM, generate awareness about sanitation and its linkages to public health, capacity augmentation for ULBs and to create an enabling environment for private sector participation in capex (capital expenditure) and opex (operation and maintenance) (GoI, 2014). The mission is implemented by the Ministry of Urban Development (now Ministry of Housing and Urban Affairs) and is supposed to cover 4,041 statutory towns in India till 2019. The mission includes:

- i. Household toilets, including conversion of insanitary latrines into pour-flush latrines; for 80% of urban households defecating in the open¹⁰
- ii. Community toilets for 20% of urban households defecating in the open.
- iii. Public toilets for floating population (presumed at 5% of total urban population).
- iv. Solid waste management for 80% of urban population (allowing for a 2% increase year on year).
- v. Information, Education and Communication (IEC) & Public Awareness
- vi. Capacity building and Administrative & Office Expenses (A&OE)

The larger part of sanitation services like water supply and sewerage are covered by the Atal Mission for Rejuvenation and Urban Transformation (AMRUT)¹¹.

The estimated cost of implementation of SBM-U is Rs. 62,009 Crore. The central share amounts to Rs. 14786.92 Crore and a minimum additional amount equivalent to 25% of GoI funding, amounting to Rs. 4,874 Crore shall be contributed by the States as State/ ULB share. The centre and state provide Rs 4000 and Rs 2667 respectively for the construction of IHHL under SBM-U. The balance funds are to be generated through various other sources such as private sector participation, beneficiary share, user charges, Swachh Bharat Kosh, Corporate Social Responsibility etc. The unique feature in the funding pattern is the establishment of the Swachh Bharat Kosh to facilitate philanthropic contributions and Corporate Social Responsibility (CSR) funds to achieve the objective of improving cleanliness levels in urban areas, including schools.

Along with encouraging innovative projects and toilets for girls.¹² It is an innovative tactic to invite corporate funds for the Swachh Bharat campaign. But these investments are restricted to building toilets in schools, instead of focusing on issues like behavioural change and public awareness.

Swachh Bharat Mission (Gramin)

It's rural counterpart, SBM-G aims to fulfil the same objectives as SBM-U in rural areas at an estimated allocation of Rs 1,34,386 crore, out of which the central share is Rs 1,00,447 crore (75%) **which is about 7 times the urban support.**¹³ The cost of construction of IHHL under SBM-G is Rs 12000 (shared between centre and state). Any additional cost requirement is to be met with funds from the State/Gram Panchayat, and from other sources like Finance Commission funding, CSR, Swachh Bharat Kosh and through the PPP model.¹⁴ Therefore, not only is the allocation double for SBM-G, it has a much larger share of central assistance as compared to SBM-U, and a much smaller window for private sector participation.¹⁵

The stark difference in the central allocation can be attributed to the magnitude of the sanitation problem in rural areas where 67% of the households defecate in the open, compared to 12% of urban households. **But this simplistic rural-urban binary overlooks the challenges of urban poverty and congestion, that lead to graver health and environmental challenges.** Bartlett (2003) notes that high concentration of people and waste in urban areas creates more opportunities for exposure to pathogens, and a correspondingly greater need for the levels of hygiene that are made possible with adequate water and sanitation. Therefore, he notes that those living in poor urban settlements face some of the most testing environmental conditions, and child mortality and morbidity rates in these settlements equal or exceed those in rural areas. Many others have pointed to the gravity of sanitation related health concerns in urban areas. Hewett and Montgomery (2001) note that urban populations suffer from the disadvantages of crowding and dependence on common resources and without safe water supply and adequate sanitation are exposed to greater risks of communicable disease than spatially dispersed rural populations. The availability of open spaces in rural areas reduces risk of contamination and disease. If community toilets in rural areas become filthy, people can opt for the outdoors, away from the insanitary latrine compound (Doron and Jeffrey, 2014). In urban areas, the lack of open spaces, congestion and pollution only adds to the burden of the sanitation problem and needs deeper consideration in policy-making.

ALLOCATION ACROSS SBM-U COMPONENTS

Central allocation

Since the SBM-U is a centrally sponsored scheme, the central government takes the lead in allocating funds to the states. Allocated funds refer to the funds that are budgeted or planned for spending. As noted earlier, Centre's share over a period of five years is Rs 14786.92 crore that is to be distributed among states and the various components under SBM-U. Annex 1 shows that solid waste management was allocated 50% of the total central share allocated, followed by the construction of household toilets at 28% of the total allocation, while community toilets account for 4% of the total central share allocated. Information, education and communication (IEC) and Capacity Building (CB) that will play a crucial role in the successful implementation of all the components of the mission have been allocated only 13% and 4% of the central share respectively.

Central sanction

Out of the allocated funds, the central government sanctions or releases funds for spending. Annex 2 shows that out of Rs14786.9 crore of allocated central assistance, Rs 5507.3 crore (37%) of central assistance has been sanctioned as of 2017-18, however 63% of the remaining central share will be sanctioned till 2019, clearly implying that the mission is running behind schedule. A comparison of annex 1 and annex 2 shows that 51% of the total central assistance has been sanctioned to the construction of IHHL and community toilet

blocks, even though only 33% of the total central share was allocated to toilet construction. Moreover, only 38% of the central share has been sanctioned to SWM, even though 50% of the total centre share was allocated to SWM.

Table 1 shows that 58% of the allocated funds under toilet construction have been sanctioned, whereas only 28% of the allocated funds under SWM and only 22% and 25% of the allocated funds under IEC and CB have been sanctioned.

Solid waste management

At the beginning of the mission, various cleanliness drives were organised in public places. Images of political leaders sweeping the streets broom in hand were common across media platforms. The idea to promote cleanliness that should start with one's surroundings became the overarching goal of the mission. However the notion of a 'Clean India' was soon transformed to an 'open defecation-free India'. The comparison between allocation and sanction of central funds shows a clear shift of focus from solid waste management to IHHL construction.

Swachh Bharat advertisements now endorse the need for a toilet in every household thereby linking toilets inextricably to the idea of a clean India. The advertisements are directed towards behavioural change and may indeed aid in promoting toilet usage but the understanding that toilet construction guarantees usage is extremely presumptuous. Most importantly, the absence of the need for proper solid

Table 1: Allocation and sanction under SBM-U (Rs in Cr)

Funds	Year	SWM	IHHL & CTBs*	IEC	CB & A & OE	Supplementary	Total
Allocation	Total	7424.2	4860.1	1876.9	625.7		14786.9
		100%	100%	100%	100%		100%
Sanction	2014-15	287.5	440.7	89	23.8	18.6	859.5
		4%	9%	5%	4%		6%
	2015-16	225.3	797.2	7.7	48.9	0.0	1079.1
		3%	16%	0.4%	8%		7%
	2016-17	951.9	952.5	217.2	44.5	0.0	2166.1
		13%	20%	12%	7%		15%
	2017-18	640.3	620.1	100.1	42.1	0.0	1402.7
		9%	13%	5%	7%		9%
	Total	2105	2810.5	414	159.3	18.6	5507.4
		28%	58%	22%	25%		37%

Source: SBM-U allocation accessed from (http://137.59.201.157:8080/sbm/content/writereaddata/Enhanced_Central.pdf)

SBM-U sanction accessed from SBM-U website available at <http://swachhbharaturban.gov.in/sanction.aspx>, accessed on 9th May 2018

Note*: Community Toilet Blocks (CTBs)

waste management from this rhetoric is hugely problematic. Wankhade (2015) writes that the SBM-U needs to grant proper attention to safe collection of waste and disposal to lead to improved health outcomes. Otherwise, without addressing the entire sanitation cycle, improved toilets alone will not be able to address environmental challenges.

Despite the promulgation of the Solid Waste Management Rules 2016, the current practice of solid waste management includes open unregulated combustion at waste collection site or open disposal without considering possible environmental consequences. This is true for many municipalities, where burning of solid waste is considered to be a significant factor for ambient air pollution (Banerjee et al, 2017). Therefore, proper solid waste management is essential to improve the sanitation situation as envisioned in the SBM-U guidelines.

But annex 3 shows that Maharashtra generates 22,570 metric tonnes of waste per day i.e 18% of the total waste generated in urban India, and covers 81% of the wards in the state with door to door collection of waste, but only 39% of the waste is processed in the state. States like Gujarat and Chandigarh that account for 100% door to door collection of waste, only account for 23% and 33% of waste processing in each of these states respectively whereas Tripura and Meghalaya process 57% and 58% of the total waste generated in each of these states respectively even though only 13% and 14% of wards are covered with door to door collection of waste. On an average, 74% of wards are covered with door to door collection of waste, but only 25% of waste is processed in urban areas in

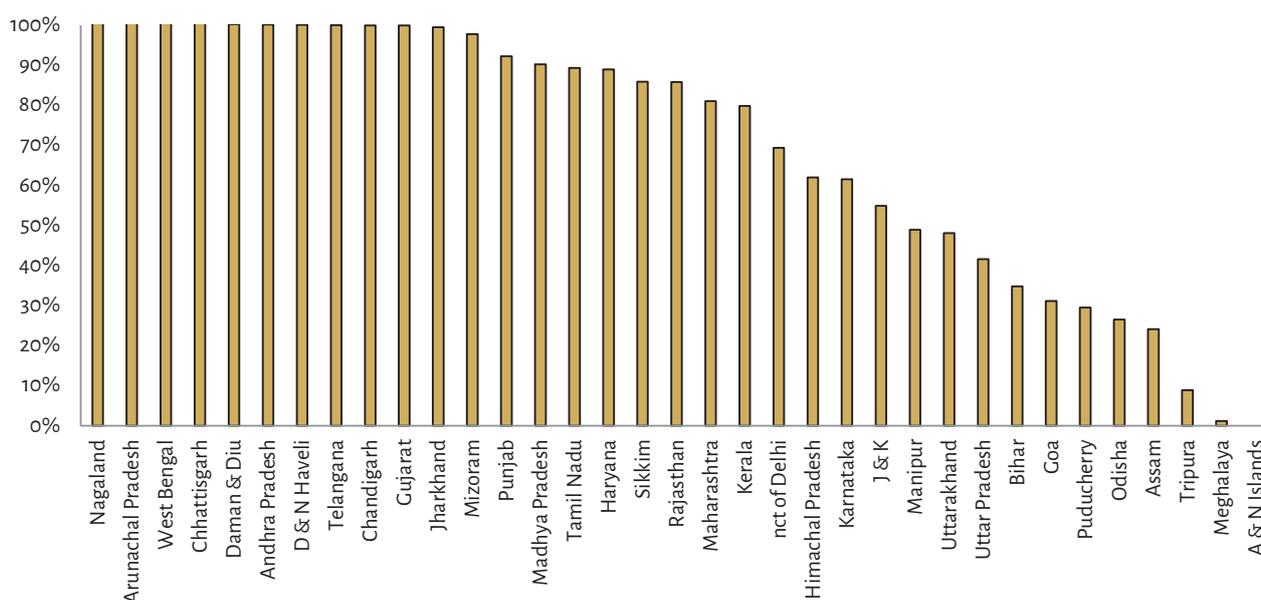
India, which means that 75% of the waste remains untreated and contaminates land or makes its way into rivers and lakes.

Therefore, even though the mission aimed to “clean” India, proper collection, processing, treatment and disposal of waste remain major challenges. The SBM did provide the correct political messaging by linking the construction of toilets to the idea of a ‘cleaner’ India through image conscious marketing, well represented by the “no toilet, no bride” campaign, one of the many associated with the mission.¹⁶ However, while it treats the construction of toilets as an indicator for a cleaner India by aiming to eliminate open defecation, it underestimates the importance of actually ‘cleaning’ India by tackling the enormous problem of waste that is visibly widespread in towns and cities of varying sizes.

Toilet construction

The number of constructed toilets have been increasing. The target set under SBM-U was to construct a total of 1.04 crore individual toilets and 5.08 lakh Community Toilets (CTs)/Public Toilets (PTs). As per the Accountability Initiative (AI) budget brief (2017-18),¹⁷ as of January, 2017, a total of 29.18 lakh IHHLs and 1.10 lakh CT/PTs had been constructed across India. Whereas as of February 2018¹⁸, 46.36 lakh IHHLs and 3.06 lakh CT/PTs have been constructed. Fig 1 shows that many states have constructed all the toilets approved for construction. Whereas most states have constructed 50% of the toilets approved for construction. But the toilet construction numbers highlight discrepancies such as the constructed toilet numbers exceeding the applications

Fig 1 : Share of constructed toilets to applications approved for toilet construction.



Source: IHHL data (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018

approved, e.g., in Arunachal Pradesh and West Bengal. In Nagaland 288 IHHLs have been constructed even though only 1 application was approved.

The increasing toilet construction numbers create an impression of progress of the mission by providing visible indicators of its resolve and obscure the growing complexity of waste management. But **behavioural change is essential to ensure toilet usage and behaviour is linked to the surroundings we live in. Therefore, insanitary spaces will only encourage poor sanitation habits and improved waste management will only encourage better sanitation practices. Therefore, toilet construction cannot be seen in isolation from waste management.** This is one link in the sanitation cycle that SBM-U also needs to address.

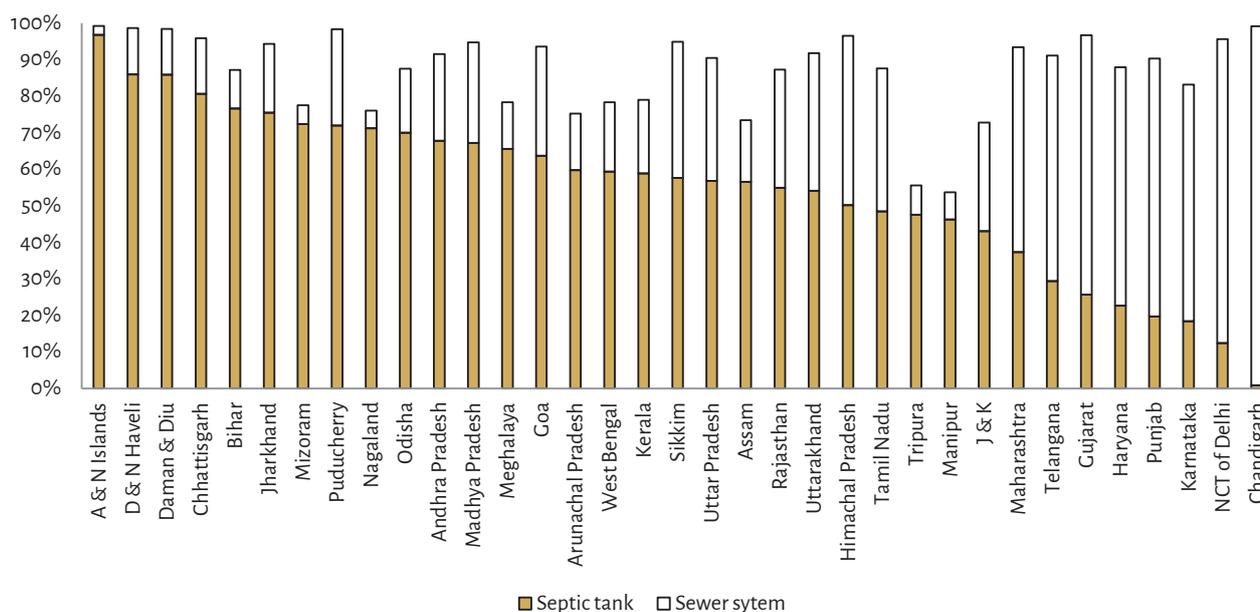
Moreover, the treatment and disposal of human waste remains a major challenge. As fig 2 shows that a larger proportion of households in most states have septic tank system instead of being connected to the sewerage system. Therefore the toilets being constructed under the SBM-U will also most likely use septic tanks and not sewers. For instance, Chhattisgarh has constructed 3.03 lakh household toilets, most of which are likely to have septic tanks since 81% of the households with toilets in the state have septic tanks, whereas only 15% of these households are connected to the sewerage system. Though faecal sludge management (FSM) has been recognised as an important policy measure under

the AMRUT, the mission only covers 500 class I cities. Thus, even toilet construction only addresses a part of the sanitation problem that is collection, temporary storage and partial treatment and will not improve health outcomes without safe collection, conveyance and treatment of human waste.

IEC

Information, education and communication of the challenges of poor sanitation can influence behavioural change to aid toilet usage. But annex 2 notes that the IEC component accounts for only 8% of the total central share sanctioned, even though 13% was allocated. What seems to be forgotten is that the need to construct a toilet is an individual effort and therefore the mission needs to be backed with robust communication strategy to generate awareness and public interest. Moreover, various field studies on poor toilet usage have pointed towards lack of awareness of the importance of sanitation and hygiene and their impacts on health (Bharat and Sarkar, 2016). Ranjan (2014) notes that behavioural change will play a greater role than providing central assistance to build toilets and propagates the community-based approach to influence preferences against open defecation. For instance community led total sanitation was pioneered in a small community in Bangladesh in 1999 to facilitate the process of empowering local communities to stop open defecation and to build and use toilets without the support of any external hardware subsidy (Kar and Pasteur, 2005). Banerjee et al (2016) write that Community-led total sanitation that stresses

Fig 2: Share of households with toilets connected to sewer system and septic tanks



Source: Census 2011

on education about hygiene, and social marketing, along with encouraging small-scale entrepreneurial actions that use the state as a promoter, is expected to be more successful than just providing cash incentives that will not necessarily increase awareness to use toilets.

Curiously, Fig 3 does not show any significant relationship between the proportion of central share sanctioned for IEC and the toilets constructed out of the total households without toilets. For instance, Gujarat constructed 90% of IHHLs out of the total households without toilets, but only 7% of the total funds were sanctioned under IEC. In Assam, even though 38% of the total central share was sanctioned to IEC, only 9% of IHHLs have been constructed out of the total households without toilets. This raises questions regarding the efficacy of IEC in encouraging toilet construction. But toilet construction is also driven by the provision of cash incentives. Toilet usage, on the other hand, remains an individual decision, which is where IEC may contribute in generating awareness and encouraging behavioural change.

Capacity building

Annex 2 also shows that capacity building accounts for only 2% of the total central share sanctioned, even though 4% was allocated. Even though previous programmes like the JNNURM failed to achieve its desired objectives due to lack of capacity of local governments to implement the mission (Khan, 2014; Sivaramakrishnan, 2011). The trajectory is no

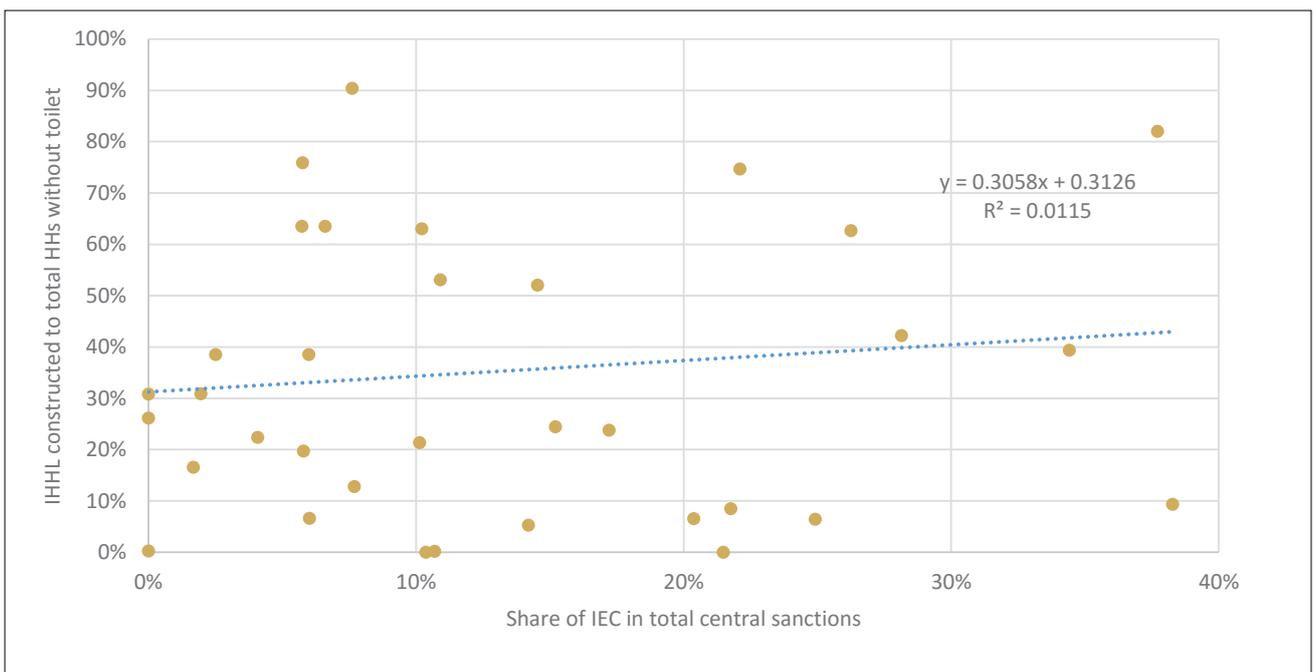
different for SBM-U. Sanan (2011) notes that the staff in urban local bodies (ULBs) have limited knowledge about behaviour change approaches, causing these strategies to be weak and limited in scope. Moreover, most ULBs have limited technical capacity to ensure timely and cost-effective implementation of programmes and services. The smaller ULBs are worst off in this respect. Sharma (2012) notes that paucity of funds and dearth of institutional capabilities in these ULBs contributes to poor services and inadequate infrastructure. Therefore, when the delivery of basic services is also a challenge for most ULBs, the implementation of national programmes like the SBM-U will require adequate funds and technical expertise, in order to design, execute and operate all systems related to sanitation effectively.

ALLOCATION ACROSS STATES

Since toilet construction has been the most visible indicator of the mission's progress, it is essential to understand whether the need for toilets in states match the central funds allocated and sanctioned under the mission, and the initial projection and the subsequent applications approved for IHHL construction.

Annex 1 shows that Uttar Pradesh, Maharashtra and Tamil Nadu have been allocated 35% of the central funds, whereas other states like Chhattisgarh, Orissa and Bihar that have the highest share of households defecating in the open, have been

Fig 3: Relationship between the proportion of central share sanctioned to IEC and IHHL constructed to total households without toilets



Source: SBM data accessed from SBM website available at <http://swachhbharaturban.gov.in/sanction.aspx>, accessed on 9th May 2018; IHHL data available online at (<http://swachhbharaturban.gov.in/ihhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

allocated only 10% of the total central allocations. Similarly, annex 2 shows that Madhya Pradesh, Gujarat, Rajasthan and Tamil Nadu have been sanctioned 43% of the total central funds sanctioned, whereas Chhattisgarh, Orissa and Bihar that have the highest share of households defecating in the open have been sanctioned 11% of the total central funds sanctioned. This indicates an apparent mismatch of the need for toilets in states that need it the most to the central funds allocated and sanctioned under the mission.

Fig 4a, Fig 4b and fig 4c show the mismatch between the projection for IHHL construction and the applications approved for IHHL construction to the need for toilets in each state. Fig 4a shows that many states under-projected the number of IHHLs to be constructed. For instance, Gujarat projected only 70% of the total households without toilets for IHHL construction, but approved applications for IHHL construction of 90% of the households without toilets. Fig 4b shows that Karnataka projected IHHL construction for more than 100% of the total households without toilets, but has approved applications for IHHL construction of only 40% of the households without toilets. Fig 4c, on the other hand, shows that Tripura has over-projected IHHL construction to more than 1400% of the households without toilets, but has approved applications of only 3% of the households without toilets. Annex 4 provides more detailed information on this disparity. But as applications approved for toilet construction are still less than households without toilets in all the states, there is scope for course correction.

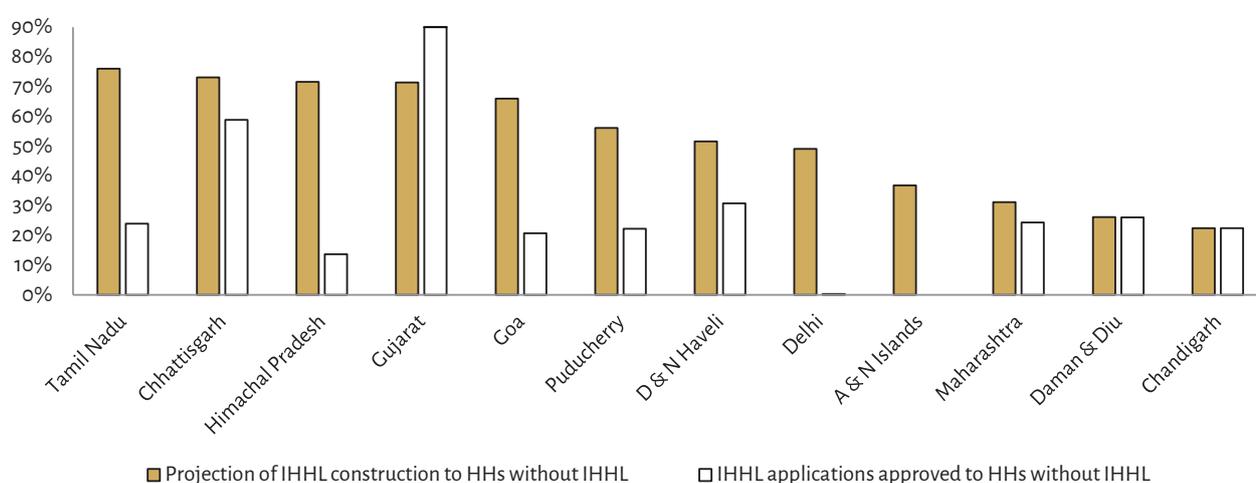
Apart from the need for toilets in each state, it is also incumbent to look at the states that contribute the highest share of households without toilets in urban India. Fig 5 shows

that Maharashtra accounts for 13% of the total applications approved for IHHL construction, but 23% of the total households without toilets in urban India. Whereas Uttar Pradesh accounts for 16% of the total applications approved for IHHL construction, and only 9% of the total households without toilets in urban India. Fig 6 shows that even though Kerala and Manipur account for 0.3% and 0.1% of the total households without toilets, the applications approved are 0.5% and 0.3% of the total applications approved for toilet construction in urban India. **Whether you consider the share of households without toilets within each state or the states that contribute the highest share of households without toilets in urban India, there seems to be a mismatch between the actual need for toilets and the applications approved for toilet construction.**

This disconnect can be attributed to the criteria that was estimated in the mission guidelines for the distribution of project fund based on two conditions (i) 50% weightage to the ratio of urban population in each State / UT to the total urban population (ii) 50% weightage to the ratio of number of statutory towns in each State / UT to the total number of statutory towns (Gol, 2014). The objective of the SBM-U, however, is to eliminate open defecation. Therefore, *it is puzzling why the distribution of the project fund was not based on the share of households without toilets and share of households defecating in the open in each state.*

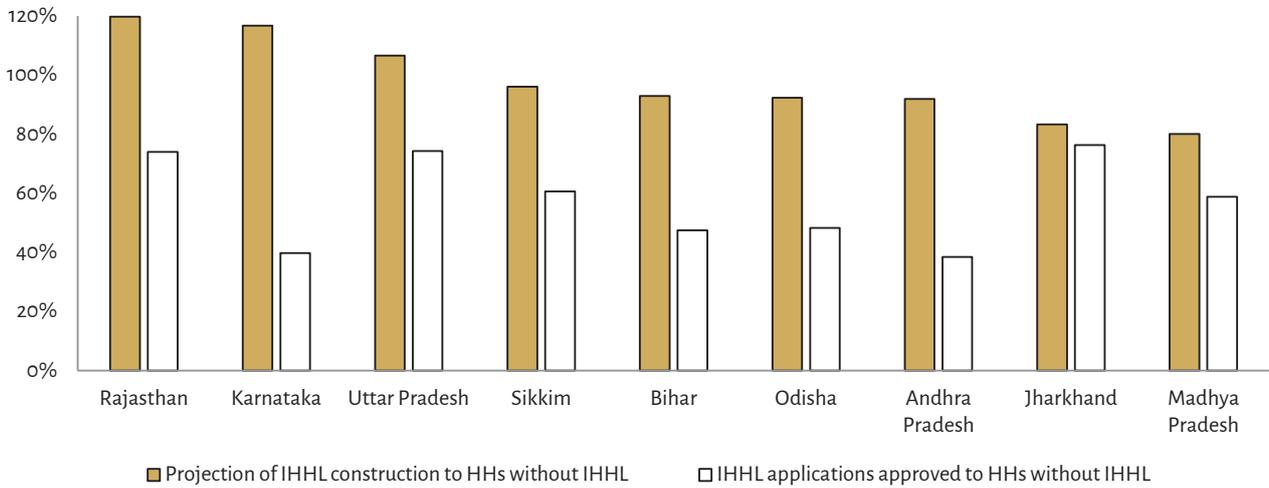
Moreover, the disparity in the proportion of applications projected and approved for IHHL construction to the need for toilets in each state could indicate that providing financial incentives increases the demand for central funds but does not necessarily encourage better sanitation practices. On

Fig 4a: States that have under-projected IHHL construction to the need for toilets



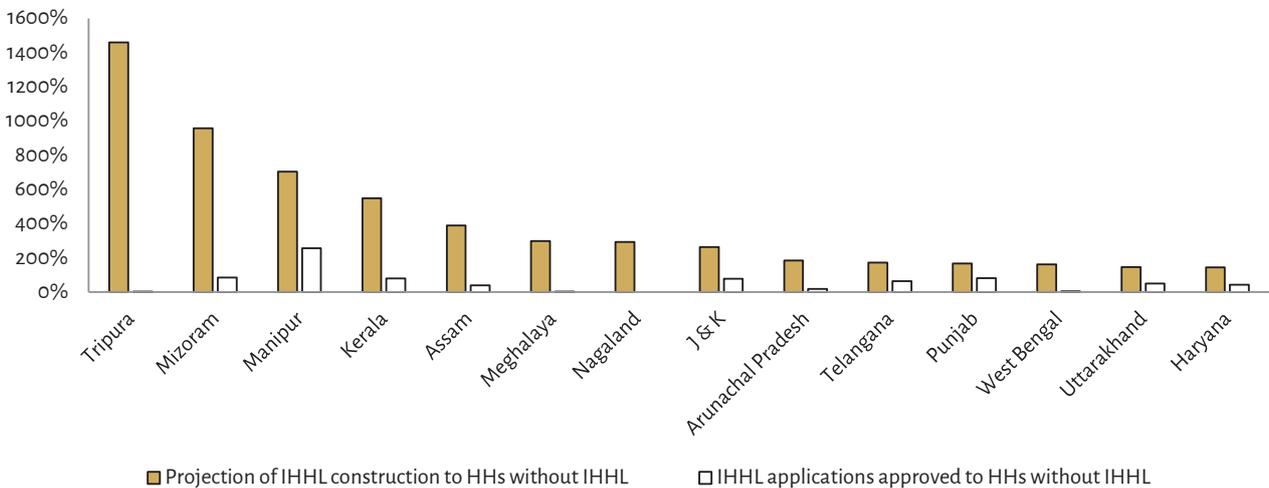
Source: IHHL projection accessed from lok sabha question no. 1394 for 04.03.2015 (http://164.100.47.193/Annexure_New/lsq16/4/au1394.htm); IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

Fig 4b: States that have closely projected IHHL construction to need for toilets



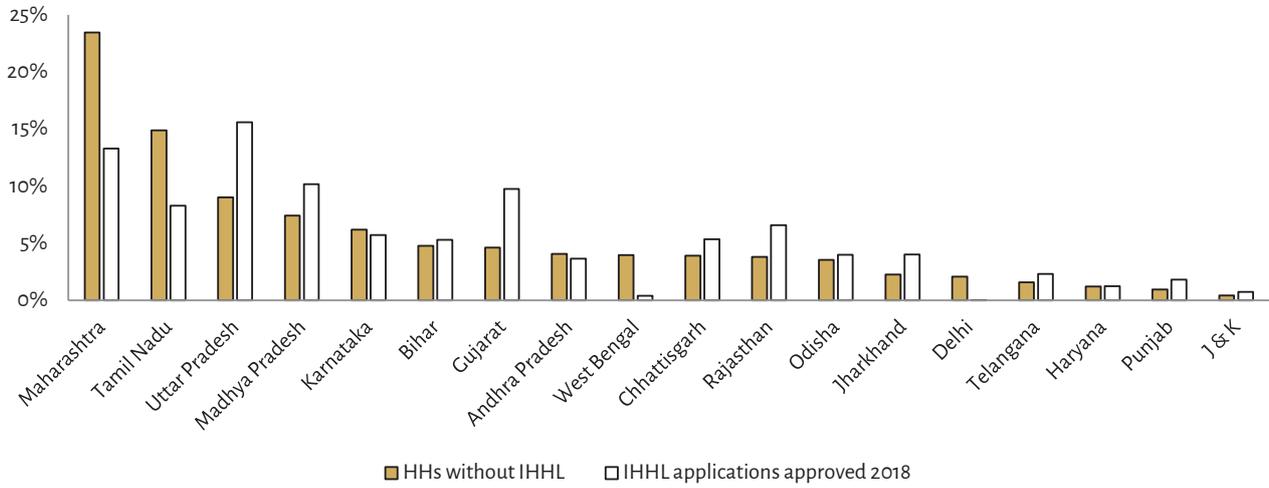
Source: IHHL projection accessed from lok sabha question no. 1394 for 04.03.2015 (http://164.100.47.193/Annexture_New/lsq16/4/au1394.htm); IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

Fig 4c: States that have over-projected IHHL construction to the need for toilets



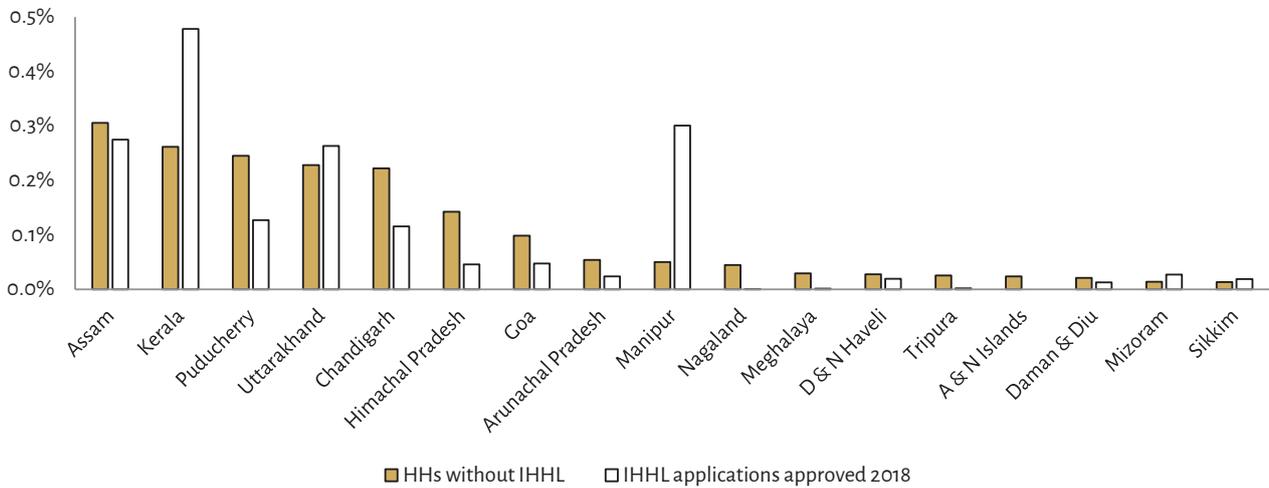
Source: IHHL projection accessed from lok sabha question no. 1394 for 04.03.2015 (http://164.100.47.193/Annexture_New/lsq16/4/au1394.htm); IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

Fig 5: Share of total applications approved for IHHL construction to share of total HHs without toilets in some major states



Source: IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

Fig 6: Share of total applications approved for IHHL construction to share of total HHs without toilets in smaller states



Source: IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

the other hand, improving the sanitation situation requires a holistic approach that treats all its constituents equally to achieve long term goals such as behavioural change, proper waste management, instead of relying on quick remedies such as toilet construction, with little or no focus on mechanisms that will aid toilet usage or address treatment of waste.

RECOMMENDATIONS

The objective of the paper was to understand whether the financial and physical progress of the SBM-U corresponds to the need in order to meet the objectives of the mission. For this purpose, the data corresponding to the financial and physical progress was accessed from the mission website and matched with the Census 2011 data and analysed. Based on this, our key recommendations are as follows:

- i) The analysis brought to light various inconsistencies in the data, in terms of numbers constructed and approved for construction, raising concerns regarding the effective monitoring of the mission. The first recommendation is therefore to improve data dissemination. For this, the Centre may have to take the lead in ensuring common and timely data reporting protocols. This will also help in monitoring progress of the mission.
- ii) The central support to SBM-U is one seventh that of SBM-G. Given the difference in number of households practicing open defecation, some disparity is expected, but it is important to reinforce the nature of urban sanitation challenges. This level of disparity, between the urban and rural components of the SBM, discounts the complexities of urban congestion and poverty that lead to higher health and environmental risk in urban areas thereby reflecting greater need for improved sanitation in these areas. This differential risk should be factored in while making allocation decisions.

iii) Though 50% of the total central funds were allocated to SWM, 51% of the total central funds have been sanctioned to IHHL construction. Similarly, 13% and 4% of central funds were allocated to IEC and CB, but only 8% and 2% have been sanctioned. The allocation and sanction of central funds to the various components of SBM-U does not reflect the need for these components from the perspective of improving the entire sanitation cycle. As proper solid waste management is necessary to create cleaner surroundings, to foster behavioural change towards better sanitation practices. While IEC may not ensure toilet construction, it may be crucial in encouraging toilet usage. Capacity building is essential for ULBs to manage solid and faecal waste properly. Even though AMRUT covers water supply, sewerage and faecal sludge management services, it only caters to the larger cities. Thus, given the inter-dependence of various components, this disparity in the allocation and sanction of SBM-U central funds among them needs to be mitigated.

iv) Since SBM-U allocated funds on the basis of the share of urban population and statutory towns, states with greater need have low allocations. The inter-state allocation criteria needs to be revised to include the share of households without toilets and share of households defecating in the open.

There is enough time to rectify some of these shortcomings. The increasing toilet construction numbers create an impression of progress of the mission by providing visible indicators of its progress but obscure the complexity of improving the entire sanitation cycle. If it is to truly achieve a Swachh Bharat, the SBM-U should resist the temptation to ignore criticism and declare victory simply because household toilets are being built.

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NOTES

1. Planning Commission. Fourth Five Year Plan (1969). New Delhi Para 19.25
2. <http://164.100.47.190/loksabhaquestions/annex/7/AU1854.pdf>
3. Allocated funds refer to the funds that are budgeted or planned for spending whereas sanctioned funds refer to the funds that have been sanctioned for spending.
4. UIG data as on 8-8-2014 and UIDSSMT data as on 31-3-2014 on the JNNURM website <http://jnnurm.nic.in/wp-content/uploads/2014/05/SECTOR-WISE-DETAILS-OF-PROJECTS-UNDER-UIDSSMT.pdf> <http://jnnurm.nic.in/wp-content/uploads/2014/08/Sector-wise-details-.pdf>
5. <http://pib.nic.in/newsite/mbErel.aspx?relid=96062>
6. The Central Rural Sanitation Programme (CRSP) and the Total Sanitation Campaign (later renamed the Nirmal Bharat Abhiyan from 2012) were launched in 1986 and 1999 respectively, primarily focusing on constructing toilets and managing solid waste in rural areas.
7. PIB press release dated 24-September-2014. Restructuring of the Nirmal Bharat Abhiyan into Swachh Bharat Mission. New Delhi
8. http://swachhbharaturban.gov.in/writereaddata/Statewise_status_of_implementation.pdf, accessed on 9th May 2018
9. <http://swachhbharaturban.gov.in/ihhl/RPTApplicationSummary.aspx>, accessed on 9th May 2018
10. Due to land and space constraints in constructing IHHLs, it assumed that 20% of the households currently defecating in the open (i.e., about 1.5 million) will use community toilets.
11. The JNNURM was replaced by the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in 2015 for infrastructural development.
12. PIB press release dated 25th November 2014. Government Announces Swachh Bharat Kosh Operational Guidelines; To Come into Force with Immediate Effect. (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=111856>)
13. <http://164.100.47.5/qsearch/QResult.aspx> (accessed on 11th August, 2017)
14. SBM-G guidelines <http://mdws.gov.in/sites/default/files/SwachBharatGuidlines.pdf>
15. <http://164.100.47.5/qsearch/QResult.aspx>
16. The Times of India. No brides for houses without toilets, say 110 villages from 3 states. 12th February 2017
17. Accountability Initiative, Swachh Bharat Mission-Urban Gol 2017-18, Budget Briefs Vol 9/Issue 5 (http://accountabilityindia.in/sites/default/files/pdf_files/BudgetBrief_SBM-U_2017-18.pdf) Accessed on 9th August 2017
18. SBM-U website (http://swachhbharaturban.gov.in/writereaddata/Statewise_status_of_implementation.pdf) Accessed on 9th May, 2018

Annex 1: Component wise contribution of Gol share in allocations (Rs. in cr)

State	% of HHs without IHHL	% of HHs defecating in the open	Central Assistance (Cr.)						Retained at Centre		
			IHHL	CT	SWM	IEC	CB	Total	IEC	CB	Total
A & N Islands	11.6	4.8	0.4	0.1	2.5	0.4	0.1	3.5	0.1	0.1	3.7
Andhra Pradesh	16.1	13.2	184.1	28	308.5	40.6	10.2	571.3	10.2	6.8	588.3
Arunachal Pradesh	10.2	6.5	5.9	0.4	8.7	14.7	3.7	33.3	3.7	2.4	39.5
Assam	4.8	3.6	70.1	2.8	92.1	80	20	265	20	13.3	298.3
Bihar	30.6	28.3	218.9	45.3	260	47.6	11.9	583.7	11.9	7.9	603.5
Chandigarh	12.7	3	2.5	0.5	22.2	2.2	0.6	28	0.6	0.4	28.9
Chhattisgarh	39.7	34.3	140.8	34.4	131.5	40.9	10.2	357.8	10.2	6.8	374.9
D & N Haveli	15.4	9.1	0.7	0.2	2.3	0.4	0.1	3.6	0.1	0.1	3.8
Daman & Diu	17	4.5	0.3	0.1	1.6	0.5	0.1	2.6	0.1	0.1	2.8
Goa	12.9	6.1	3.2	0.5	9.3	3.3	0.8	17.1	0.8	0.6	18.5
Gujarat	11.3	7.7	162.6	32.2	536.2	82.5	20.6	834.1	20.6	13.8	868.5
Haryana	9.5	8.1	86.7	10.6	181.8	30.4	7.6	317.1	7.6	5.1	329.8
Himachal Pradesh	10.9	6.8	6	1.1	18.3	13.3	3.3	42	3.3	2.2	47.5
J & K	10.7	9.3	64.4	4.4	81.6	25.3	6.3	182	6.3	4.2	192.5
Jharkhand	27.6	25.3	92.4	21.1	122.7	18	4.5	258.7	4.5	3	266.2
Karnataka	15.1	10.6	355.4	44.3	512.5	84.6	21.2	1018	21.2	14.1	1053.2
Kerala	2.5	1.4	70.6	1.5	121.4	21.2	5.3	220	5.3	3.5	228.8
Madhya Pradesh	25.2	21.8	292.8	65.4	434	102.3	25.6	920	25.6	17	962.6
Maharashtra	29	7	359.9	57.6	1081.8	142.8	35.7	1677.8	35.7	23.8	1737.3
Manipur	4.6	2.5	21	0.3	17.7	19.8	5	63.7	5	3.3	72
Meghalaya	4.9	2.6	5.2	0.2	10.4	9.1	2.3	27.2	2.3	1.5	30.9
Mizoram	1.5	0.9	7.9	0.1	15.9	16.9	4.2	45	4.2	2.8	52.1
Nagaland	5.3	2.2	7.7	0.2	14	14.4	3.6	40	3.6	2.4	46
Nct of Delhi	11	2.7	50.2	5.2	263.7	24.6	6.2	349.8	6.2	4.1	360
Odisha	32.8	30.6	161.3	33.8	138.1	31.1	7.8	372	7.8	5.2	385
Puducherry	16.4	10.3	6.8	1.6	17.3	2.6	0.7	29	0.7	0.4	30
Punjab	6	5.2	78.7	8.5	221	44.8	11.2	364	11.2	7.5	382.7
Rajasthan	16.4	15.1	225	35.7	363.5	65	16.3	705.5	16.3	10.8	732.6
Sikkim	4.8	2.1	0.8	0.1	4.1	5.2	1.3	11.4	1.3	0.9	13.6
Tamil Nadu	24	14.8	558	93.5	689.9	186.5	46.6	1574.5	46.6	31.1	1652.2
Telangana	7.2	6.5	133.3	20.2	223.4	29.4	7.4	413.7	7.4	4.9	426
Tripura	1.9	0.9	22	0.2	18.6	15.4	3.9	60.1	3.9	2.6	66.5
Uttar Pradesh	16.3	14.2	473.3	80	940.9	197.4	49.4	1741	49.4	32.9	1823.2
Uttarakhand	5.7	3.9	19.6	1.9	69.1	21.6	5.4	117.6	5.4	3.6	126.6
West Bengal	10.6	6.5	315.3	24.8	487.8	66.7	16.7	911.3	16.7	11.1	939.2
Total	18.3	11.8	4203.4	656.7	7424.2	1501.5	375.4	14161.3	375.4	250.3	14786.9

Source: SBM data accessed from (http://137.59.201.157:8080/sbm/content/writereaddata/Enhanced_Central.pdf) ; Census 2011

Note: Public Toilets were kept out of the realm of central funding and were to be built by 100% private funding.

The difference between HHs without IHHL within premises and HHs defecating in the open are HHs with access to public latrine.

Annex 2: Central funds sanctioned under SBM-U (Rs. in cr)

State	% of HHs without IHHL	% of HHs defecating in the open	IHHL & CTBs	SWM	IEC	CB & A & OE	Total*
A & N Islands	11.6	4.8	1	0.1	0.3	0	1.4
Andhra Pradesh	16.1	13.2	83.2	207	19	7.4	316.5
Arunachal Pradesh	10.2	6.5	2.5	6.8	5.9	2	17.2
Assam	4.8	3.6	5	7.1	8.4	1.5	22.1
Bihar	30.6	28.3	101.2	119.3	3.9	9.7	234.2
Chandigarh	12.7	3	1.7	2.5	0.2	0	4.4
Chhattisgarh	39.7	34.3	166.9	49	25.2	6.1	247.2
D & N Haveli	15.4	9.1	0.3	0	0	0.1	0.4
Daman & Diu	17	4.5	0.1				0.1
Goa	12.9	6.1	2.6	5.9	2.9	0.3	11.7
Gujarat	11.3	7.7	221.1	268.1	42.4	9.6	557.6
Haryana	9.5	8.1	14.7	57.7	1.9	0.5	74.7
Himachal Pradesh	10.9	6.8	3	9.1	3.7	1.1	16.9
J & K	10.7	9.3	17.2	10.9	11.2	0.4	39.6
Jharkhand	27.6	25.3	75.5	89.1	10.3	3.6	178.4
Karnataka	15.1	10.6	100.4	47.3	29.7	17.6	195
Kerala	2.5	1.4	31.7	0	11.5	0.5	43.6
Madhya Pradesh	25.2	21.8	341.6	301.8	80.1	9.2	734.9
Maharashtra	29	7	287.1	15.1	19.1	8.5	329.8
Manipur	4.6	2.5	1.8	9.6	2.8	1.2	15.3
Meghalaya	4.9	2.6	0.5	3	0.4	0.1	4.1
Mizoram	1.5	0.9	2	8.2	7.5	2.1	19.8
Nagaland	5.3	2.2	5.7	6.7	2.1	0.3	14.7
NCT of Delhi	11	2.7	30.2	63.1	11.2	0.2	104.8
Odisha	32.8	30.6	76.6	19	8.1	1.4	105.1
Puducherry	16.4	10.3	0.7	2.1	0.8	0.4	4.1
Punjab	6	5.2	28	23	14.8	1.1	66.9
Rajasthan	16.4	15.1	207.4	344.3	34.1	8.5	594.2
Sikkim	4.8	2.1	0.4	2.5	0.6	0.5	3.9
Tamil Nadu	24	14.8	227	205	49.2	4.4	485.7
Telangana	7.2	6.5	68.3	91.2	11.6	4.7	175.7
Tripura	1.9	0.9	7.8	0	0	0	7.8
Uttar Pradesh	16.3	14.2	411.5	37.6	9	2.2	460.2
Uttarakhand	5.7	3.9	9.8	5	3.4	1.7	19.9
West Bengal	10.6	6.5	276.2	88	24	11.2	399.4
Total	18.3	11.8	2810.6	2105	455.2	118	5507.3

Source: SBM data accessed from SBM website available at <http://swachhbharaturban.gov.in/sanction.aspx>, accessed on 9th May 2018; Census 2011

Note: The difference between HHs without IHHL within premises and HHs defecating in the open are HHs with access to public IHHL.

*Madhya Pradesh and Gujarat have been sanctioned Rs 18.6 (Rs 2.2 crore and 16.3 crore respectively) as supplementary central share.

Annex 3: State wise collection and processing of waste under SBM -U

State	Total waste generated (MT/D)	% of wards with door to door collection of waste	% of total waste processed
A & N Islands	115	100	23
Andhra Pradesh	6384	96	7
Arunachal Pradesh	181	84	0
Assam	1134	24	10
Bihar	1318	77	3
Chandigarh UT	462	100	33
Chhattisgarh	1680	100	74
Dadra & Nagar Haveli	35	0	0
Daman & Diu	32	100	38
Goa	260	100	62
Gujarat	10145	100	23
Haryana	4514	68	6
Himachal Pradesh	342	50	20
Jammu & Kashmir	1374	35	1
Jharkhand	2327	104	2
Karnataka	10000	61	22
Kerala	1463	43	45
Madhya Pradesh	6424	97	18
Maharashtra	22570	81	39
Manipur	176	42	50
Meghalaya	268	14	58
Mizoram	201	80	4
Nagaland	342	44	15
NCT of Delhi	10500	86	55
Odisha	2650	65	2
Puducherry UT	350	100	3
Punjab	4100	66	21
Rajasthan	6500	94	10
Sikkim	89	100	66
Tamil Nadu	15437	83	8
Telangana	7371	65	67
Tripura	420	13	57
Uttar Pradesh	15288	54	20
Uttarakhand	1406	79	20
West Bengal	7700	49	5
Total	143558	74	24.8

Source: State-wise implementation of SWM as of February 2018 on Swachh Bharat Mission (U) website (http://swachhbharaturban.gov.in/writereaddata/Statewise_status_of_implementation.pdf) accessed on 9th May, 2018

Annex 4: Need vs. planning of IHHL in states (in percentage)

State	HHs without IHHL	HHs with access to public toilets	HHs practising open defecation	Projection of IHHL construction to HHs without IHHL	IHHL applications approved to HHs without IHHL
A & N Islands	11.6	6.8	4.8	36.8	0
Andhra Pradesh	16.1	3	13.2	91.9	38.5
Arunachal Pradesh	10.2	3.7	6.5	184.4	18.8
Assam	4.8	1.2	3.6	388.8	38.7
Bihar	30.6	2.2	28.3	92.9	47.5
Chandigarh	12.7	9.7	3	22.4	22.4
Chhattisgarh	39.7	5.5	34.3	73.1	58.9
D & N Haveli	15.4	6.3	9.1	51.6	30.8
Daman & Diu	17	12.5	4.5	26.2	26.1
Delhi	11	8.3	2.7	49.1	0.3
Goa	12.9	6.8	6.1	66	20.7
Gujarat	11.3	3.6	7.7	71.4	90.4
Haryana	9.5	1.4	8.1	144.4	43.3
Himachal Pradesh	10.9	4.1	6.8	71.6	13.7
J & K	10.7	1.4	9.3	262.3	76.9
Jharkhand	27.6	2.3	25.3	83.3	76.3
Karnataka	15.1	4.5	10.6	116.7	39.8
Kerala	2.5	1.1	1.4	548.3	78.5
Madhya Pradesh	25.2	3.4	21.8	80.1	58.8
Maharashtra	29	22.1	7	31.2	24.3
Manipur	4.6	2.1	2.5	703.7	256.4
Meghalaya	4.9	2.4	2.6	298.5	2.3
Mizoram	1.5	0.6	0.9	958.1	83.9
Nagaland	5.3	3.1	2.2	292.7	0
Odisha	32.8	2.2	30.6	92.3	48.3
Puducherry	16.4	6.1	10.3	56.1	22.2
Punjab	6	0.8	5.2	166.3	80.9
Rajasthan	16.4	1.3	15.1	119.8	74
Sikkim	4.8	2.7	2.1	96.1	60.6
Tamil Nadu	24	9.2	14.8	76.1	23.9
Telangana	7.2	0.8	6.5	172.3	63.5
Tripura	1.9	1	0.9	1459.5	2.9
Uttar Pradesh	16.3	2.1	14.2	106.6	74.3
Uttarakhand	5.7	1.8	3.9	145	49.5
West Bengal	10.6	4.1	6.5	162.1	4.3

Source: IHHL projection accessed from lok sabha question no. 1394 for 04.03.2015 (http://164.100.47.193/Annexture_New/lsq16/4/au1394.htm); IHHL data available online at (<http://swachhbharaturban.gov.in/iuhl/RPTApplicationSummary.aspx>) accessed on 9th May 2018; Census 2011

SCALING CITY INSTITUTIONS FOR INDIA: SANITATION (SCI-FI: SANITATION)

This policy brief has been produced by the Scaling City Institutions For India: Sanitation (SCI-FI: Sanitation) research programme at the Centre for Policy Research (CPR) which focuses on inclusive and sustainable urban sanitation. The programme seeks to understand the reasons for poor sanitation, and to examine how these might be related to technology and service delivery models, institutions, governance and financial issues, and socio-economic dimensions. It also seeks to support national, state and city authorities develop policies and programmes for intervention with the goal of increasing access to safe and sustainable sanitation in urban areas.

